### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-001376 Address: 333 Burma Road **Date Inspected:** 30-Jan-2008

City: Oakland, CA 94607

OSM Arrival Time: 600 **Project Name:** SAS Superstructure **OSM Departure Time:** 1400 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes No Fu Yu Hong **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** OBG and Tower Mock-up

## **Summary of Items Observed:**

CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

## Tower Shop (Tower Mock-up 89 M)

The QA inspector observed ZPMC QC inspectors Li Li Ming and E Shuiqin performing ultrasonic testing (UT)at the junction skin E to D (interior) and skins D and C (exterior). The QA inspector had a conversation with Mr. Xu Jun and Mr. Li Li Ming. The QA inspector asked how ZPMC scanned the skins A and B weld joints on the Tower Mock-up 89M, 77M and 114 M. Mr. Xu Jun translated from Mr. Li Li Ming that ZPMC scans from the side A and B with shear waves and the side C with the straight beam transducer. The QA inspector informed to ZPMC representatives that according with the angle between skin A and B, ZPMC supposed to scan with butt joint procedure listed on the Table 6.2 from the AWS D1.5 (2002) in lieu of the corner joint procedure. ZPMC agreed. In addition the QA inspector said that the QA inspector found a rejectable class A indication from the other side of the weld axis at the Tower splice Mock-up 114 M which ZPMC did not record. Two incidents report were issued by the QA inspector on this date about the above no compliant items.

#### Bay I (OBG Deck)

The QA inspector observed that ZPMC welder Shi Yunli performing tack welding operations at the junction of deck panel DP-058 and U ribs U-133, U-63, U-13, U-62 and U-64. Plate # PL-114B following a WPS that have not been approved by Caltrans.

Note: An incident report was issued because ZPMC was performing tack welding operations with unapproved

# WELDING INSPECTION REPORT

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welding specification procedure (WPS).

## **Summary of Conversations:**

As noted above.

## **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Acuna, Alfredo	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer